FINAL RULE TO IMPLEMENT U.S. SEAFOOD IMPORT MONITORING PROGRAM
RIN 0648-BF09

FINAL REGULATORY IMPACT REVIEW AND
FINAL REGULATORY FLEXIBILITY ANALYSIS

1.0 REGULATORY IMPACT REVIEW

A Regulatory Impact Review (RIR) is conducted to comply with Executive Order 12866 (E.O. 12866) and provides analyses of the economic benefits and costs of this final action to the nation as a whole. The information contained in this document, taken together with the data and analysis in the FRFA, comprise the complete RIR. The requirements for all regulatory actions specified in E.O. 12866 are summarized in the following statement from the order:

In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits should be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nonetheless essential to consider. Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.

E.O. 12866 further requires Office of Management and Budget review of proposed regulations that are considered to be "significant." A significant regulatory action is one that is likely to:

- Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, local or tribal governments of communities;
- Create serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the president's priorities or the principles set forth in this Executive Order.

1.1 Statement of the Problem

The United States is a global leader in sustainable seafood. Over the course of the last six years, the United States has largely ended overfishing in federally managed waters and successfully rebuilt a record number of overfished stocks, with both overfishing and overfished fish stocks at all-time lows. Effective management and enforcement of domestic fishing regulations has supported near record highs in both landings and revenue for our domestic fishing industries. As a result, the United States' approach of science-based fisheries management is recognized internationally as a model for ending overfishing and implementing sustainable fisheries management practices.

One of the biggest global threats to the sustainable management of the world's fisheries is illegal, unreported, and unregulated (IUU) fishing. IUU fishing occurs both within nations' waters and on the high seas and undermines the biological and economic sustainability of fisheries both domestically and abroad. IUU fishing in other parts of the world can cause problems in places where there are strong rules managing fisheries, such as the United States. By circumventing conservation and management measures and cutting or avoiding the operational costs associated with sustainable fishing practices and harvesting levels, entities engaged in IUU fishing undermine the sustainability of fish stocks and the broader ecosystem. Further, IUU fishers gain an unfair advantage in the marketplace over law-abiding fishing operations as they do not pay the true cost of sustainable production. Global losses attributable to IUU fishing have been estimated to be between $10-23 billion annually. Additionally, U.S. efforts to reduce global hunger, malnutrition, and coastal risks are being undermined by IUU fishing in developing countries. Over 2.5 billion people depend upon fish for food and nutrition, and IUU and unsustainable fishing threatens valuable food resources. Combating IUU fishing will directly contribute to U.S. commitments and efforts to enhance global food and nutrition security.

A number of factors including complex trade systems, comingling, and broad geographic distribution contribute to difficulties in documenting the chain of custody for fish and seafood products. According to the United Nations' Food and Agriculture Organization, fish and seafood products are among the most widely traded food commodities in the world. Additionally, some seafood is comingled in the global supply chain as part of processing and distribution. Once a shipment of seafood enters U.S. commerce, it is often distributed widely making it difficult to document the chain of custody and guarantee that the product reaching the consumer has been legally harvested or is in fact the product as claimed to be.

While not necessarily related to IUU fishing, seafood fraud (whereby fish is mislabeled with respect to its species or country of origin, quantity, or quality) has the potential to undermine the economic viability of U.S. and global fisheries as well as the ability of consumers to make informed purchasing choices. Seafood fraud can occur at any point along the seafood supply chain from harvest to market. It can be driven by diverse motives, from covering up IUU fishing to avoiding duties, to increasing a profit margin through species substitution or falsification of the country of origin. While it is difficult to know the extent of seafood fraud, the frequency of seafood fraud incidents has received increasing attention in peer-reviewed journals, government reports and private sector reports. Seafood fraud threatens consumer confidence, serving to further undermine the reputation and market competitiveness of law-abiding fishers and businesses in the seafood industry.

On June 17, 2014, the White House released a *Presidential Memorandum* entitled "Establishing a Comprehensive Framework to Combat Illegal, Unreported, and Unregulated Fishing and Seafood Fraud." Among other actions, the Memorandum established a Presidential Task Force on Combating Illegal, Unreported, and Unregulated (IUU) Fishing and Seafood Fraud (Task Force), co-chaired by the Departments of State and Commerce, with membership including a number of other Federal agency and White House offices: the Departments of Agriculture, Defense, Health and Human Services, Homeland Security, Interior, Justice; the Federal Trade Commission; the U.S. Agency for International Development; the Council on Environmental

Quality; the Office of Management and Budget; the Office of Science and Technology Policy; the National Security Council; and the Office of the U.S. Trade Representative.

The Task Force was directed to report to the President "recommendations for the implementation of a comprehensive framework of integrated programs to combat IUU fishing and seafood fraud that emphasizes areas of greatest need." Those recommendations were provided to the President through the National Ocean Council and NMFS requested comments from the public on how to effectively implement the recommendations of the Task Force (79 FR 75536, December 18, 2014).

Recommendation 14 of the Task Force concerns the development of a risk-based traceability program (including defining the types of information to be collected and operational standards) as a means to combat IUU fishing and seafood fraud. Recommendation 15 calls for the implementation of the first phase of that risk-based traceability program to track seafood identified as being most at risk of IUU fishing or seafood fraud from point of harvest to entry into U.S commerce.

The first step taken to address Recommendations 14 and 15 was the identification of those priority species most at risk of IUU fishing or seafood fraud (Table 1). The second step taken is this rulemaking, which establishes data reporting and related operational requirements at the point of entry into U.S. commerce for imported fish and fish products of priority species. For the HTS codes listed in Table 1, approximately 215,000 entries to the U.S. were made in 2014, filed by about 600 brokers on behalf of 2,000 importers.[1] In comparison, about 740,000 entries were filed for all edible seafood commodities. Thus, the priority species to be monitored under this program represent approximately 27% of edible seafood entries annually. However, this list of priority species represents 39% of edible seafood imports by volume in 2014 and, because of the high value of several of the priority species, about 46% of imports by value (Table 4).

Note, however, that the final action accounts for delayed implementation of the import monitoring requirements with respect to shrimp and abalone. In the proposed rule, NMFS noted concerns about including shrimp and abalone in the import monitoring program given gaps in comparable reporting and recordkeeping for the domestic aquaculture industry. As NMFS does not have the regulatory authority to require reporting and/or recordkeeping in the domestic aquaculture industry, NMFS is staying the import monitoring program with respect to shrimp and abalone until action is taken to close the gaps.

Approximately 70,000 entries of shrimp and abalone products occur annually and the compliance costs for these entries are included in this analysis because it is intended by NMFS that shrimp and abalone imports will be subject to program requirements when NMFS lifts the stay. However, NMFS has not requested current approval of the compliance burden for these imports under the Paperwork Reduction Act because the program will not currently be applied to shrimp and abalone. Therefore, NMFS will seek approval for the information collection

[1] Unpublished 2014 data for individual entry filings obtained by NMFS from Customs and Border Protection.

burden attributable to import monitoring for shrimp and abalone at the same time that it lifts the stay on these products.

1.2 Description of Each Alternative

Please see the IRFA (Section 2.6) below for a full description of alternatives.

Under the no action alternative, NMFS would not implement a seafood traceability program as called for in the Action Plan. Under the harvest event data reporting alternative, information on the harvest event would be reported to the U.S. Customs and Border Protection (CBP) automated commercial environment (ACE) at entry via an electronic data set and supply chain information would be submitted to ACE via the document imaging system. Under a data set submission alternative, entry filers would only submit a limited message set into ACE, but would also need to separately and directly provide NMFS, when requested, any additional supply chain documentation and data necessary for NMFS to complete verification of lawful acquisition at the time of, or in advance of, importation.

Under the selected alternative, harvest event information would be reported upon entry into commerce (import). Supply chain information would be a recordkeeping requirement on the part of importers. Upon selection of a particular entry for audit, the importer of record is responsible to furnish chain of custody records to NMFS for verification of the supply chain from the harvest event to the entry into commerce. Implementation of these requirements for shrimp and abalone will be stayed pending resolution of data gaps in the domestic aquaculture sector.

1.3 Economic Analysis of Expected Effects of the Selected Action Relative to the Baseline

Establishing the baseline for assessing impacts of the final action requires an estimate of IUU fishing globally and the extent to which the products of IUU fishing infiltrate the U.S. supply chain. By its very nature (often unreported and undetected), the extent of IUU fishing globally is difficult to estimate. Published values vary and are based on numerous assumptions. Rather than estimate the value of the illegitimate products themselves, the impact of IUU fishing is often estimated in terms of economic losses to legitimate fishing activities (diminished fish stocks, depressed prices, loss of business tax/licensing revenues). It has been estimated that the global value of economic losses from IUU fishing ranges between $10 billion and $23.5 billion annually, representing between 11 and 26 million tons of fish products.[2]

Similarly, the prevalence of IUU fish products in the U.S. supply chain is difficult to estimate and published values are also based on numerous assumptions. Given the high proportion of imports that make up the U.S. edible seafood supply (> 90% by volume in 2014)[3], it is highly likely that some proportion of U.S. imports are products of IUU fishing activities. One study

[2] Agnew, DJ et al. 2009. Estimating the Worldwide Extent of Illegal Fishing. PloS One 4(2): e4570.DOI: 101371/journal.pone.0004570

[3] National Marine Fisheries Service. 2015. Fisheries of the United States 2014, p 94.

estimated that between 20% and 32% ($1.3–2.1 billion) of wild-caught seafood U.S. imports are illegal.[4]

1.3.1 Economic Impacts

Economic impacts are expected from the selected action. Cost impacts would include any investments in information technology necessary to collect and transmit information about catch, transfer, processing and trade as the shipment of fish products moves through the supply chain. Costs to consumers would be manifested via higher prices due to the exclusion of illegal product from the market place (reduced supply), as well as the passing on of industry compliance costs to the consumer. The magnitude of price increases attributable to rejection of undocumented shipments is likely to be small given the numerous alternative sources of supply for many fish products.[5] In addition, the compliance costs for the program are estimated to be less than one percent relative to the value of the products. It should also be noted that evidence exists of consumer willingness to pay premiums at the retail level for fishery products of certified and sustainable origin.[6]

There are also benefits that would be associated with the final action relative to the no-action alternative. Implementing a seafood traceability program will enable the U.S. to exclude unlawfully acquired seafood products from the U.S. market. Taken together with other product specific (e.g., Bluefin tuna, Antarctic toothfish) or market specific (e.g., EU) import documentation measures, the exclusion of IUU products from major world markets will reduce the incentive (profitability) for IUU fishing, thus diminishing its prevalence in, and impact on, global fisheries. Action by the United States, in concert with actions taken in other significant import markets, will reduce market infiltration and prices paid for IUU fishing products, decreasing the incentives for, and as a consequence, the incidence of IUU fishing activities globally.

The primary objective of this rule is to collect additional data on imported fish and fish products to ensure that illegally caught or fraudulently misrepresented seafood does not enter into U.S. commerce. These legal requirements are also the concerns of the importers of seafood products, as consumers do evaluate the origin of seafood, among other factors, when making purchase decisions. Given the level of imports contributing to the annual supply of seafood in the U.S. marketplace, collecting and evaluating information about fish and fishery products sourced overseas are a part of normal business practices for U.S. seafood dealers. The permitting and electronic reporting requirements implemented by this rulemaking would build on current business practices and are not estimated to pose significant adverse or long-term economic impacts.

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[4] Pramod, G et al. 2014. Estimates of illegal and unreported fish in seafood imports to the USA. Marine Policy (48) 102-113.

[5] The United States imports seafood from over 100 other countries: (http://www.st.nmfs.noaa.gov/commercial-fisheries/foreign-trade/applications/annual-product-by-countryassociation)

[6] Blomquist, J et al., 2015, Price Premiums for Providing Eco-labelled Seafood: Evidence from MSC-certified Cod in Sweden. Journal of Agricultural Economics, Vol. 66, No. 3, 2015, 690–704: doi: 10.1111/1477-9552.12106

1.3.2 Affected Entities

In implementing this rule, NMFS estimates there will be approximately 2,000 new applicants for the International Fisheries Trade Permit, with an estimated industry-wide increase in annual costs to importers of $60,000 in permit fees at $30 per permit to recover administrative costs. Based on 2014 entries of the designated priority species, approximately 600 entry filers would be required to submit a data set. NMFS estimates that the cost of ACE certified software to transmit the message set would be about $3,000 for each broker. Approximately 2,000 importers would be required to retain supply chain records. Data sets to be submitted electronically to determine product admissibility are, to some extent, either already collected by the trade in the course of supply chain management, already required to be collected and submitted under existing trade monitoring programs (e.g., tuna, swordfish, toothfish), collected in support of third party certification schemes voluntarily adopted by the trade or, for food items entering the U.S. market, already required under other statutes (e.g., Bioterrorism Act, Food Safety Modernization Act). Incremental costs to the supply chain are likely to consist of developing interoperable systems to ensure that the data are transmitted along with the product to ensure the information is available to the entry filer and data storage costs to fulfill recordkeeping requirements.

The final rule would apply to U.S. entities that import fish and fishery products derived from the designated priority species. This final rule would be implemented so as to avoid duplication or conflict with any other Federal rules. To the extent that the requirements of the final rule overlap with other reporting requirements applicable to the designated priority species, this has been taken into account to avoid collecting data more than once or by means other than the single window (ACE portal). As stated above, this rule is intended to ensure that illegally caught or fraudulently misrepresented seafood does not enter U.S. commerce. Given the large volume of fish and fish product imports to the U.S. market, the number of exporting countries, and the growing number of traceability systems within the seafood industry, it is not expected that this rule would significantly affect the overall volume of trade or alter trade flows in the U.S. market for fish and fish products that are legally harvested and properly labeled.

1.3.3 Effect on Trade

NMFS considered the experience of the European Union in implementing its IUU regulation of 2008 as a potential indicator of likely impacts of the U.S. seafood traceability program. The European Commission Directorate General for Maritime Affairs and Fisheries (DG MARE) studied the implementation of the EU IUU Regulation and concluded that there were no significant impacts observed on community-wide seafood imports and on trade flows, both in terms of product substitution and distribution of product among member states. As stated in the report, "… data indicates that there are no noticeable trends in weight of fishery products imported between 2009 and 2010. For the main commodities identified by their tariff headings, imports rose (+2% for 0304, +6% for 0307), remained stable (0303) or slightly decrease (-2% for 1604, -3% for 0302). In total, imports of fishery products from extra-EU countries rose slightly between 2009 and 2010 (+1%)."[7]

[7] Study On the State Of Play Regarding Application And Implementation Of Council Regulation (EC) No 1005/2008 Of 29 September 2008, Establishing A Community System To Prevent, Deter And Eliminate Illegal,

When considering the possible economic impact of this rule on seafood trade, analysis of U.S. and European Union (EU) trade data pertaining to the designated priority species shows that most countries exporting the applicable products to the U.S. market are already compliant with IUU-related traceability requirements for seafood exported to the EU market. Thus, the fishing entities in these countries, and the associated businesses in the supply chain, should already be able to comply with the new U.S. requirements (see list of countries at Table 2 below). Several countries were found to ship seafood to the EU market but not necessarily the commodities associated with the species designated as priorities for the initial phase of the U.S. traceability program. Fishing businesses in these countries would have some experience in meeting the data collection and reporting requirements of the EU IUU regulation. There are only a few countries identified in the analysis (see list of countries in Table 3b below) which ship the priority seafood species to the United States but not to the EU market and these countries only ship a comparatively small amount of seafood to the U.S. market.

The impacts of this action on trade (import volume) and prices for the affected seafood products are expected to me minor. Edible seafood imports to the U.S. in 2014 were valued at $20 billion. The commodities subject to documentation requirements under the initial phase of the program amounted to about 50% of 2014 import value (Table 4). Thus, complete elimination of these products from the U.S. market would have an impact of $10 billion in imported value. However, given the likely ability of the trade to apply existing supply chain information systems to meet the requirements of the U.S. program, such an impact is highly unlikely. If exports to the U.S. from countries not already implementing the EU program (see note to Table 3b) are eliminated, it is estimated that the volume of products likely to be diverted away from the U.S. would be less than 1% of current imports. Taking another view, the top three exporters of most of the species/species groups subject to information collection account for about 70 percent or more of the U.S. import market share, depending on the commodity (Table 4.). In all cases, the top three exporters to the U.S. also export the same products to the E.U. Thus, it can be expected that compliance with the U.S. reporting requirements would not be a significant burden for exporters already compliant with the E.U. program.

1.3.4 Effect on Businesses

In considering potential incremental impacts of this action on individual businesses, NMFS notes that the seafood industry is already subject to several other U.S. government mandates for reporting, recordkeeping and labeling (country-of-origin labeling, prior notice declaration for food imports, and supply chain recordkeeping to support food safety requirements). In addition to government mandates, seafood markets have adapted to consumer demands for information on lawful acquisition, sustainability, region of origin, and conditions of harvest. Private sector businesses and non-profit organizations have responded to these market demands by offering certification, eco-labeling and certification services to harvesters, processors, wholesalers and retailers throughout the seafood supply chain. That businesses are willing to pay for these services is indicative of the price and/or market access advantages afforded by program participation.

Unreported And Unregulated Fishing (IUU Regulation), DG MARE, April 2014, p. 77. (Note that the 4 digit codes referenced are chapter headings/subheadings in the Harmonized Tariff Schedule.)

One provider of certification and traceability services indicates that its subscribers account for 10 percent of the global volume of wild capture fisheries.[8] Clients of another provider of traceability services report that investments in its traceability systems help to manage risk, improve efficiency and drive sales, have created customers, and have increased demand and price.[9] The existence of U.S and foreign governmental drivers for information systems that are already responsive to requirements under the U.S. seafood traceability program, and the increasing prevalence of private sector products that could be applied in meeting the U.S. requirements for seafood traceability, indicate that the incremental costs of compliance with this action are less than would be calculated against a baseline that does not take into account these developments.

1.3.5 Assumptions for the Analysis and Public Comment

In considering the compliance costs of the proposed action, NMFS made assumptions about the baseline and the extent to which incremental costs would be incurred by individual businesses and the seafood importing sector as a whole. NMFS calculated the costs of permitting based on average annual entries for the HTS codes included within the scope of the proposed traceability program. Quantitative cost estimates of recording harvest data and passing that data through the supply chain to accompany seafood through transshipment, processing and marketing are difficult to achieve due to limited data and variation from simple to complex which exists in the supply chains for specific products.

NMFS has made an assumption that countries (exporters) who currently comply with the EU program would have no significant incremental costs to comply with the U.S. program and requested comment on the reasonableness of that assumption. NMFS also requested comment on the situation faced in countries not currently exporting the priority species to the EU and the costs likely to be incurred to comply with the U.S. program. NMFS notes that the reporting and recordkeeping costs for aquaculture products may have been underestimated as these products are excluded from the EU program but were proposed for inclusion in the US program. NMFS requested comment on the costs of compliance for aquaculture producers and traders in these products. NMFS also noted the existing recordkeeping requirements for suppliers and receivers of food products pursuant to food safety requirements administered by the Food and Drug Administration (FDA). NMFS requested comment on the assumptions about existing requirements meeting the needs of the proposed program for seafood traceability.

NMFS acknowledges that there may be incremental costs of the U.S. program relative to the E.U. program and due to differences in chain-of-custody information requirements. NMFS has made an assumption that there are no significant incremental costs of recordkeeping for chain-of-custody information due to the flexibility afforded through use of existing commercial documents (processor receipts, commercial invoices, bills of lading) to meet this requirement and due to the existence of other governmental mandates or evolving market demands for such information to which industry may have already responded. NMFS also recognizes that chain-

[8] https://www.msc.org/business-support/key-facts-about-msc January 20, 2016

[9] http://www.traceregister.com/our-clients/ January 20, 2016

of-custody reporting may have impacts on product commingling practices currently prevalent in the processing industry and requested comment on the costs of responsive actions likely to be taken (i.e., avoiding commingling or establish tracking systems to account for it).

In issuing the proposed rule, NMFS specifically sought comment on the costs of compliance with the seafood traceability program including which cost factors had been inadequately assessed and where the most difficult reporting and recordkeeping burdens exist in the supply chain. In particular, NMFS received comment that the data entry costs for U.S. importers were underestimated, especially in the case of small boat fisheries where a large number of harvest events would contribute to an inbound shipment of seafood. This concern was illustrated in the comments of the National Fisheries Institute, wherein several scenarios were presented regarding small boat fisheries and the number of harvest events that would have to be reported.[10]

Commenters also suggested that the total hourly cost to an importer for the labor required toenter traceability data through ITDS is higher than the $15.00 estimated by NMFS. Commenters identified additional costs not incorporated in the Draft Regulatory Impact Review and Initial Regulatory Flexibility Analysis, including the cost of paying harvesters and farmers for traceability data, the cost of auditing suppliers to insure that reported information is accurate and complete, and the cost of insuring themselves against the risk that imported information is erroneous, and the related risk of delayed entry of imported products. Comments suggest that enforcement of the regulations implementing the Program will cause exporters to choose alternative markets to the United States.

While some commenters assumed a linear relationship between the number of harvest events related to an import entry and the amount of time required to provide the traceability data, NMFS notes that many of the data elements will be identical across numerous harvest events, and software developers will likely identify "loop-backs" that preclude the need to repeatedly enter the same species, harvest area, address, etc. for a series of harvest events in the same fishery. As well, importers are likely to build databases from which previously reported information can be pulled and entered as appropriate. These efficiencies will create economies of scale such that the actual (average) time needed to complete the harvest information associated with an entry will decrease as the number of harvest events to be reported on an entry filing increases.

NMFS also considered the EU IUU Regulation allowance for simplified catch reporting for small scale vessels and has provided for aggregated harvest reports for small scale vessels and aquaculture deliveries. Aggregated harvest reports for small scale deliveries will reduce the number of vessels and catch records that must be reported with each import.

NMFS does not agree with the comment that harvesters and farmers will be in a position to demand payment for traceability data, and commenters did not provide quantitative or qualitative information regarding the likelihood of such risks. There is no indication that the imposition of existing catch documentation systems (e.g., the EU system, RFMO schemes) resulted in measurable increases in the cost of seafood. The data required to be provided by the harvester to the U.S. importer aligns very closely with the data requirements of the European Union catch

[10] https://www.regulations.gov/document?D=NOAA-NMFS-2015-0122-0098

certification program and several RFMO schemes. Providing this information to buyers for the U.S. program should be no more costly or burdensome.

While the FDA requirements for recordkeeping would partially support a trace-back audit, the NMFS program does impose an additional burden on the U.S. importer to maintain records on the entire supply chain, not just the supplier and recipient for any business entity at a particular link in the seafood distribution process. However, the FDA requirements for "one-up, one-back" recordkeeping do produce records that are responsive to the NMFS program requirements and can be passed along the supply chain to accumulate information on the full chain of custody. This does present a cumulative increase in records storage costs applicable to the U.S. importer.

The rule does not require any formal supply chain audits by seafood businesses, as one commenter asserted. Adoption of that practice by an importer would likely be informed by the importer's business model, relationship with suppliers, and perceived risk that the supplier might, whether intentional or not, provide incorrect traceability information to the importer.

1.3.5 Revised Assumptions and Cost Analysis

In response to the comments received on the proposed rule, NMFS revised several assumptions to estimate the compliance cost of the final rule. NMFS updated the hourly labor rate to $25.00 for data entry. This is consistent with the Bureau of Labor Statistics' fourth quarter 2015 estimate of $23.84 per hour on total cost to the employer for office and administrative support services. In addition, NMFS reconsidered the burden on the U.S. importer imposed by reporting on numerous individual harvest events that contribute to a single inbound shipment. First, NMFS has made an allowance for aggregation of harvest records for small scale wild capture fisheries and small scale aquaculture facilities. Second, NMFS clarified that the individual harvest events do not have to be associated with particular portions of the shipment, only that all of the harvest events contributing to the shipment in the aggregate must be reported. Finally, to approximate the impacts of the new program, NMFS examined import reporting data from the Tuna Tracking and Verification Program[11] (TTVP) to evaluate the number of harvest events associated with inbound shipments for that program.

The TTVP requires that documentation to support dolphin-safe labeling accompany all inbound shipments of tuna so labeled. The Fisheries Certificate of Origin (NOAA Form 370), together with its supporting statements (captain, observer), provide a record of the harvest event and the circumstances of tuna capture which comport with the U.S. dolphin-safe labeling criteria. As such, multiple harvest events may be delivered to a tuna processor and consolidated into a shipment bound for the United States. Each of the contributing harvest events must be documented on a NOAA Form 370 and all of the forms representing catch, in whole or in part, which contribute to the shipment must be submitted to NMFS at the time of entry.

NMFS examined the number of vessels by flag state that were reported for inbound tuna shipments in 2014 (Table 5). About 75 percent of the tuna entries within the scope of the TTVP indicated only one vessel-flag combination (though multiple vessels could be reported on a single Form 370 for that flag nation.) A relatively small number of entries reported multiple

[11] http://www.nmfs.noaa.gov/pr/dolphinsafe/

vessel-flag combinations, with 11 being the highest number. Assuming that the harvest event information particular to a vessel (name, authorization, fishing area, gear) takes about 10 minutes to enter into a certified software package for transmission of the NMFS message set to ACE, and the labor cost for data entry is $25/hour, the average cost for vessel flag related data entry is just over $6.00 per TTVP entry filing (Table 5).

While imports subject to the TTVP are illustrative of the vessel data entry requirements under the seafood traceability program, there are likely differences relative to other fisheries. Generally, the TTVP entries would be larger tuna vessels (purse seine and longline) with higher catch volume per trip than for other priority species subject to the Seafood Traceability Program. For smaller vessels in other fisheries, consolidation of lower volume catches into export shipments would mean more vessels to report to ACE in the NMFS message set. However, in the final rule, NMFS has allowed for aggregated harvest reports by receivers of catches from small scale vessels, and this will reduce the data entry burden.

Taking into account differences in fisheries (small and large catch volume), but also the allowance for aggregated harvest reports by small scale vessels, NMFS has increased the time for vessel data entry relative to the TTVP example. NMFS therefore estimates that the data entry costs for vessel information would average about $10.00 or 24 minutes for each import. In addition to the vessel information to be reported in each entry filing, the NMFS Message Set requires some header records and structural records so that the data are correctly interpreted when loaded into ACE, as well as permit data for the importer. NMFS estimates that the data entry costs for this type of information to be about 12 minutes or $5.00 per import. The rule also requires that the harvest event records and the chain-of-custody records be retained by the importer for two years from cargo release. NMFS estimates that organizing and filing the records would require 24 minutes or $10.00 for each entry subject to import reporting. The total costs per entry for the NMFS-specific reporting and recordkeeping requirements under this rule would amount to $25.00 in labor costs for one hour's effort (Table 6).

Based on 2014 CBP import records of seafood products derived from the priority species subject to the traceability program, it can be expected that approximately 215,000 entries per year would require a NMFS message set reported via ACE (Table 7). However, in the final rule, NMFS has delayed shrimp and abalone imports from harvest event data reporting due to present concerns about parity with harvest data reporting in the U.S. domestic aquaculture sector. Approximately 70,000 entries of shrimp and abalone products would not immediately require permitting, harvest event data reporting in ACE, or chain-of-custody recordkeeping on the part of the U.S. importer. However, NMFS is including the implementation costs of these information collection requirements at this time as shrimp and abalone imports will be included in the Seafood Traceability Program as soon as reporting and recordkeeping requirements are established for the domestic aquaculture industry through separate actions by other agencies.

Therefore, including these shrimp and abalone entries would incur reporting and recordkeeping costs of $25.00 applicable for a full message set with harvest data by vessel. Approximately 215,000 entries with submission of harvest event data would require 36 minutes of data entry each. The total increase in hours for the 215,000 responses for the

data set submission requirement would therefore total 129,000 hours and labor costs of $3,225,000@$25/hour (Table 8).

An additional cost of the rule would be the purchase of ACE certified software to allow submission of the NMFS message set on the part of customs brokers. Although some large brokerage houses have software developers on staff who are addressing the programming needs for ITDS integration, other brokerages will have to purchase software from developers. Note that some brokerages have already invested in software in response to a separate rulemaking for NMFS integration with ITDS (RIN 0648-AX63). NMFS estimates that software would cost about $3,000 for each broker. For the 600 brokers filing entries for the priority species, software acquisition costs would amount to $1,800,000 (Table 9). Apart from the labor costs of assembling and organizing records, importers may incur data storage costs for records that are kept for two years from the date of entry. Chain of custody records can be scanned and stored as digital images subject to retrieval in case of selection for audit. NMFS estimates that the data storage costs for 2,000 importers would amount to $640,000 annually (Table 9).

Assuming that this rule would affect 2,000 importers and 600 customs brokers making 215,000 entries per year for the priority species subject to the initial phase of the traceability program, total costs for permits, software, data entry, recordkeeping and data storage would amount to $7,875,000 in the first year (including one-time broker software acquisition), and $6,075,000 annually thereafter (Table 10). Given the approximate $9 billion annual value of seafood imports for the priority species subject to the initial phase of the seafood traceability program, the estimated annual compliance costs of about $6 million amount to less than one tenth of one percent of product value.

Future costs for expansion of the program will be related to the number of entries affected and the data elements to be collected at entry or subject to recordkeeping requirements. Expansion of the program to include additional species beyond the initial set of priority species will be accomplished through additional rulemaking and compliance costs will be calculated based on the species and data elements proposed to be included at each stage.

1.3.6 Alternative Assumptions and Upper Bound Cost Estimate

To obtain an upper-bound on estimated compliance costs, NMFS calculated an alternative estimate using information provided by National Fisheries Institute (NFI) through the E.O. 12866 regulatory review (http://www.reginfo.gov/public/do/viewEO12866Meeting?viewRule=true&rin=0648-BF09&meetingId=2004&acronym=0648-DOC/NOAA) as well as NFI's written comments on the proposed rule (https://www.regulations.gov/document?D=NOAA-NMFS-2015-0122-0098). Specifically, NMFS used NFI's estimate of cost per year for complex supply chains.

In certain instances, NMFS revised the NFI assumptions and resulting estimates where the assumptions were based on an inaccurate understanding of the rule or to account for changes from the proposed rule. Each of those revisions is reflected in the Table 11 and described in detail in the following discussion. NOAA notes that while the NFI submission

upon which this estimate is based does not include tuna, NOAA estimated a compliance cost for reporting at entry of $69,850 per year for the Tuna Tracking and Verification Program as described above.

NFI estimated costs based on its understanding of the requirements described the proposed rule. In response to comments pointing out the challenge and cost of compliance for small boat fisheries and small-scale aquaculture, NOAA modified the rule to include a provision for aggregated harvest reports of landings by small vessels and small-scale aquaculture. This provision will significantly reduce the number of harvest events associated with certain import entries, thereby reducing the amount of information to be reported by the importer of record and the overall cost of compliance. NOAA estimates that in some instances the ability to aggregate harvests by small vessels and small-scale fish farm will reduce the number of reported harvest events by more than half. For the purposes of an upper bound estimate, NOAA assumed that allowing the reporting of aggregate harvest by small vessels reduced the cost per container by 25% for blue crab, grouper, red snapper, and sea cucumber. While NOAA expects the actual reduction to be well in excess of 50%, it used the more conservative percentage for the purposes of establishing an upper-bound.

NFI also developed its estimate on the understanding that the Seafood Import Monitoring Program will require reporting of production and harvest data for aquaculture. In order to more closely reflect availability of domestic aquaculture data, the final rule establishes a recordkeeping-only requirement for imported shrimp and abalone. NOAA assumed in its upper-bound estimate that recordkeeping would require one hour per entry, resulting in a $32 per cost per entry using NFI's labor cost estimate. After the delay of the rule is lifted to require reporting for shrimp, the cost per container would be estimated to be $140, which is a 25% reduction of NFI's estimate $186 per container to adjust for aggregated harvest reports which are allowed by the final rule.

For the purposes of estimation, NMFS adopted the assumption that an entry filing corresponds to a container of fish product, although multiple entry lines may pertain to a single container with different products declared under multiple HTS codes. Conversely, multiple containers all containing the same product (single HTS code) can be declared on a single entry.

NMFS revised the cost per container for Inshore Atlantic Cod as submitted to OIRA as part of the E.O. 12866 regulatory review. NMFS increased NFI's volume per vessel estimate of 270 kg to 1000 kg. This increase is intended to reflect both a higher average per vessel as indicated in landing reports made available online by the Icelandic Directorate of Fisheries at http://www.fiskistofa.is/english/quotas-and-catches/, (NMFS considers NFI's estimate to be unreasonably low relative to reported landings), and the aggregation of small boat harvests as described in the final rule but not incorporated into NFI's model.

NFI's presentation and materials indicate an assumption that each product type present in an entry would require separate entry of harvest and landing information, however this is not the intent of the rule. To the extent that multiple product types such as loins and fillets

of various size grades result from the same harvest event or events, that information would have to be reported by the importer of record only once. For that reason, NMFS did not use the "product types per container" multiplier in calculating a cost per container and therefore assumed fewer entries per container. NMFS notes that in NFI's cost estimate for Atlantic cod there is a reduction of "product available for processing" by one half to account for cod going to the salted market and considers this adjustment adequate to account for all instances in which portions of one landing are directed to different markets.

For Pacific cod, NFI assumed that product would be harvested by small Alaskan jig vessels. Given the volume of Pacific cod imports, NMFS considers it far more likely that product would be sourced from large trawl and longline catcher vessels and catcher processors. NOAA therefore used NFI's estimate of cost per container for the Atlantic cod trawl fishery as a proxy.

In its submission, NFI suggested that for mahi-mahi, a ninety-fold increase in cost per container for complex supply chains delivering mahi-mahi, however no rationale or supporting assumptions were provided. Based on its review of NFI's more detailed calculations provided for Atlantic cod, NMFS assumes that this increase was based on an incorrect understanding that harvest and landing information must be reported separately for each product type contained in a shipment. In addition, NFI's estimates were based on the proposed rule requirement that each small boat must report landings separately, which was changed to allow fisheries to aggregate the harvest of small boats. In the Ecuadorian panga fishery used as a basis for this estimate, the aggregated harvest provision will significantly reduce the number of reported harvest events. For these reasons, NMFS included in the upper bound estimate NFI's estimate for the low end of the range for mahi-mahi.

Based on NFI's assumptions as modified by NMFS and the methodology applied to generate a cost estimate suggested by NFI, NMFS estimates an upper-bound estimate of compliance cost for reporting, recordkeeping and supply chain auditing of $17,815,225 per year. A species-by-species breakdown of that cost estimate is provided in Table 11. A total compliance cost for the program must also include an additional $2,500,000 in permit fees, ACE reporting software and data storage costs. Thus, the upper bound estimate for compliance with all program requirements is $20,315,225 for the first year (including software acquisition) and $18,515,225 thereafter. Given the approximate $9 billion annual value of seafood imports for the priority species subject to the initial phase of the seafood traceability program, the estimated upper bound annual compliance costs of about $18.5 million amount to less than one-half of one percent of product value.

1.4 Cost to Government

For the last several years, NMFS has undertaken collaborative efforts with CBP to integrate its three existing trade monitoring programs within the operations of ITDS, as mandated by the SAFE Port Act (Pub. L. 109-347) and the Executive Order on Streamlining the Export-Import

Process for America's Businesses (E.O. 13659). Given these efforts, NMFS has worked out an import permitting program, an ACE message set, and a protocol for use of the DIS for submission of supporting documents. In NMFS view, the requirements of the seafood import monitoring program fall closely within the protocols and systems already developed and agreed with CBP. While additional HTS codes will be subject to data collection at entry, additional documents would be submitted via DIS, and some new business rules for validating electronic data would be needed in ACE, the programming required would be consistent with the work already completed for NMFS ITDS integration. Also in NMFS view, the new requirements are within timeframe of the ITDS deployment schedule. However, CBP will complete the development and deployment of ITDS core functionality by December 2016. After this time frame, CBP will implement a fee for service for other government agencies requesting new functionality for data collection via ITDS. As the seafood traceability final rule will be issued after the ITDS transition to fee for service, NMFS will work with CBP to determine the extent of programming costs necessary to provide the enhanced functionality in the ACE portal necessary to implement the seafood traceability program. A preliminary estimate of the one-time programming costs is on the order of $400,000.

Additional costs to government are attributable to monitoring imports, auditing entries, consulting with foreign government counterparts regarding lawful acquisition, and addressing violations of the permitting, reporting or recordkeeping requirements of this rule. Assuming the program specialist, seafood inspector, and enforcement agent personnel assigned to implementation of the seafood import monitoring program amount to 6 full-time equivalent positions at an average annual labor cost of $125,000 each, the ongoing costs would amount to $750,000 annually.

1.5 Conclusion of Regulatory Impact Review

This rule to implement the initial phase of a seafood traceability program would not have an annual effect on the economy of $100 million or more. However, given that the final action described in this RIR raises international trade policy issues, it has been deemed significant under the meaning set forth in E.O. 12866. The costs to the seafood industry for developing and deploying supply chain information systems are not anticipated to be significant relative to the no action baseline. Simplifying the information collection at the point of import, reduces the burden on the trade while allowing NMFS to enforce the requirements for entry into commerce.

The majority of U.S. imports of fish and fish products derived from the designated priority species originate in countries that are exporting to the E.U. market, thus the supply chain from harvest to export has already implemented information collection systems that would meet the U.S. requirements. For those few affected countries not currently exporting the designated priority species to the E.U. market, compliance with the U.S. requirements would not pose an inordinate burden on U.S. importers or consumers given the relatively small volume of trade involved (see note to Table 3b). Should the exporters of these products from these countries not be willing or able to comply with the information reporting requirements of the final rule, U.S. importers should easily find sources for the products from other suppliers.

The benefits of this action would accrue in terms of potential price margins and enhanced market access for fish and fish products that are verified as lawfully acquired and admissible to the U.S. seafood market. In addition, preventing market access to illegally acquired product will reduce the incentives for, and potentially the incidence of, illegal fishing activities in areas beyond U.S. jurisdiction. Reductions in IUU fishing worldwide would help to ensure sustainable use of fish stock, thereby enhancing food security and economic livelihood for dependent populations. Additionally, given the high volume of imports as a share of the U.S. seafood supply, reducing IUU fishing for species exported to the U.S. would support sustainable harvests and contribute to stability in U.S. markets.

While the ongoing compliance costs of the initial phase of the program are estimated to be between $6.0 million and $18.5 million annually, these costs represent less than one-half of one percent of the market value of the products subject to the program requirements.

2.0 FINAL REGULATORY FLEXIBILITY ANALYSIS

The Regulatory Flexibility Act (RFA) establishes a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to ensure that such proposals are given serious consideration. The purpose of the RFA is to inform the agency, as well as the public, of the expected economic impacts of regulatory actions and to ensure that the agency considers alternatives that minimize the expected impacts while meeting the goals and objectives of the action and applicable statutes.

With certain exceptions, the RFA requires agencies to conduct a final regulatory flexibility analysis for each final rule. The final regulatory flexibility analysis (FRFA) is designed to assess the impacts various regulatory alternatives would have on small entities, including small businesses, and to determine if there are ways to minimize those impacts. In addition to analyses conducted for the Regulatory Impact Review, the regulatory flexibility analysis provides: (1) a statement of the need for and objectives of the rule; (2) a succinct statement of significant issues raised by public comments to the initial regulatory flexibility analysis and the agency's response; (3) the agency's response to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration; (4) a description and estimate of the small entities to which the rule will apply; (5) a description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule; and (6) a description of the steps the agency has taken to minimize burden on small entities, including a description of why the selected alternative was chosen over other alternatives.

Pursuant to requirements set forth in the Regulatory Flexibility Act (RFA) (5 U.S.C. 601-612), the National Marine Fisheries Service (NMFS) has considered the economic impact of this action on small entities. Accordingly, NMFS has prepared this final regulatory flexibility analysis.

2.1 Need for and Objectives of the Rule

Illegal, unreported and unregulated (IUU) fishing is a global problem that contributes to depletion of fish stocks, degradation of marine habitat, injury and mortality to protected marine living resources, loss of income to resource dependent communities and diminished food security for nations dependent on marine fishery products. Closing markets to the products of IUU fishing is an objective of many harvesting and importing nations, regional fishery management organizations and the Food and Agriculture Organization of the United Nations.

On June 17, 2014, the White House released a *Presidential Memorandum* entitled "Establishing a Comprehensive Framework to Combat Illegal, Unreported, and Unregulated Fishing and Seafood Fraud." Among other actions, the Memorandum established a Presidential Task Force on Combating Illegal, Unreported, and Unregulated (IUU) Fishing and Seafood Fraud (Task

Force), co-chaired by the Departments of State and Commerce, with membership including a number of other Federal agency and White House offices.

The Task Force was directed to make "recommendations for the implementation of a comprehensive framework of integrated programs to combat IUU fishing and seafood fraud that emphasizes areas of greatest need" to the President. Recommendation 14 of the Task Force concerns the development of a risk-based traceability program (including defining operational standards and the types of information to be collected) as a means to combat IUU fishing and seafood fraud. Recommendation 15 calls for the implementation of the first phase of that risk-based traceability program that tracks fish and fish products identified as being at risk of IUU fishing or seafood fraud from point of harvest to point of entry into U.S commerce.

The purpose of this action is to ensure that imported fish and fish products derived from illegal harvest of species designated to be at risk of illegal fishing or seafood fraud (80 FR 66867, October 30, 2015) can be excluded from entry into U.S. commerce. Under the Magnuson Stevens Act (§ 307(1)(Q)), fish and fish products that are acquired in violation of foreign law or regulation, or of treaties or measures of regional fisheries organizations, are prohibited from import, sale or transfer within the U.S. supply chain. For imported products, collection of information at the point of entry to determine the circumstances of harvest (national authorization, method, time, place of harvest) and the chain of custody of those products from the point of harvest through the supply chain, are necessary to verify that the fish products offered for entry into U.S. commerce were lawfully acquired.

2.2 Public Comments to the Initial Regulatory Flexibility Analysis

NMFS noted in the Draft Regulatory Impact Review and Initial Regulatory Flexibility Analysis the difficulty of estimating certain costs associated with compliance with the rule for a new program, and identified specific issues about which the public was encouraged to comment. NMFS is greatly appreciative of the thoughtful and detailed comments offered in this regard. Commenters affirmed that the operational attributes of some, if not all of the fisheries for species subject to the Program are such that entries of fish or fish products from those fisheries will represent, and require the reporting of data for, more than one harvest event. This was anticipated by NMFS and described in the proposed rule. In response to public comment, NMFS has made some revisions in the final rule. See response to comments and the summary of changes sections in the preamble of the final rule for information on the revisions.

NMFS received comments that the Program will impose substantial costs on the international seafood supply chain. Commenters challenged the cost estimated in the Draft Regulatory Impact Review and Initial Regulatory Flexibility Analysis, suggesting that the compliance burden for this rulemaking will often be incrementally higher due to multiple harvest events associated with an entry. Commenters also suggested that the total hourly cost to an importer for the labor required to enter traceability data through ITDS is $31.25 per hour. Commenters also identified additional costs not incorporated in the Draft Regulatory Impact Review and Initial Regulatory Flexibility Analysis, including the cost of paying harvesters and farmers for traceability data, the cost of auditing suppliers to insure that reported information is accurate and complete, and the cost of insuring themselves against the risk that imported information is erroneous, and the

related risk of delayed entry of imported products. Comments suggest that enforcement of the regulations implementing the Program will cause exporters to choose alternative markets to the United States.

With regard to cost of labor to enter data, NMFS estimated that the average hourly total cost was $15.00 per hour in the Draft Regulatory Impact Review. In light of public comment, NMFS updated the hourly rate to $25.00 per hour in the Final Regulatory Impact Review and Final Regulatory Flexibility Analysis, based on the Bureau of Labor Statistics' estimate of $23.84 total cost to the employer for office and administrative support services in the fourth quarter of 2015.

Some commenters on the proposed rule assumed a linear relationship between the number of harvest events related to an import entry and the amount of time required to provide the traceability data. This would be the case if all data were manually entered. NMFS has consulted with software developers who are in the business of automating the ITDS data-input process for importers and customs brokers. As they point out, many of the data elements will be identical across numerous harvest events, and developers will likely identify "loop-backs" that preclude the need to repeatedly enter the same species, harvest area, address, etc. for a series of harvest events in the same fishery. As well, importers are likely to build databases from which previously reported information can be pulled and entered as appropriate. These efficiencies will create economies of scale such that the actual (average) time needed to complete the harvest information associated with an entry will decrease as the number of harvest events to be reported for a particular entry increases.

NMFS does not agree that harvesters and farmers will be in a position to demand payment for traceability data, and commenters did not provide quantitative or qualitative information regarding the likelihood of such risks. There is no indication that the imposition of existing catch documentation systems (e.g., the EU system) resulted in measurable increases in the cost of seafood. The data provided by the harvester aligns very closely with those required in the European Union catch certification program. Providing this information to buyers for the Program should be no more costly or burdensome.

The rule does not require any formal audits by suppliers. Adoption of that practice by an importer would likely be informed by the importer's business model, relationship with suppliers, and perceived risk that the supplier might, whether intentional or not, provide incorrect traceability information to the importer.

Commenters pointed to the cost of insurance indemnifying importers against the cost of civil penalties for failure to comply with the rule. NMFS is not familiar with such insurance. While NMFS is aware there is liability insurance protecting the purchaser from civil action based on negligent action(s), NMFS is unaware of insurance that protects the importer from penalties for civil infractions.

NMFS disagrees that implementation of the Program will result in exporters choosing alternative markets to the United States. Similar information requirements were placed on fisheries exporting to the European Union through the implementation of its catch documentation program, and no significant disruptions in European seafood markets were observed. The United States represents an equally attractive international market, access to which is well worth the effort of providing traceability data to exporters.

2.3 Comments Filed by the Chief Counsel for Advocacy of the Small Business Administration

The U.S. Small Business Administration Office of Advocacy (Advocacy) commented that NMFS did not adequately comply with requirements under the Regulatory Flexibility Act, and expressed concerns that NMFS did not adequately assess the burden on small businesses.

NMFS has made adjustments to the final rule that reduce the burden on industry without compromising the integrity of Program. As discussed in the Initial Regulatory Flexibility Analysis (IRFA), all businesses directly affected by this rulemaking are considered small businesses. The Regulatory Flexibility Act (RFA) has two main requirements for an initial regulatory flexibility analysis (IRFA): 1) "describe the impact" the rule would have on small entities, and 2) discuss alternatives that "minimize any significant economic impact…on small entities." NMFS did both with the information available at the time the proposed rule was published. To assess the impact on small entities, in the RIR and IRFA together, NMFS analyzed the costs associated with the proposed rule which included the precise amount of permit fees and an acknowledgement of incremental costs of reporting and recordkeeping. As much of the reporting is either already required or already otherwise undertaken by the impacted entities, NMFS could not definitively provide precise incremental costs and, instead, described the types of incremental costs that regulated entities would face. The RFA specifically acknowledges that costs often cannot be precisely quantified and, thus, allows that "an agency may provide…more general descriptive statements if quantification is not practicable or reliable." 5 U.S.C. § 607. NMFS sought comment on these incremental costs to allow small entities the chance to provide relevant quantifiable information, which is one of the main purposes of the IRFA. Granting small businesses a voice in the rulemaking process is one of the main purposes of the RFA. *See* Regulatory Flexibility Act of 1980, Pub. L. 96–354 § (2)(a)(8).

Advocacy incorrectly states that "NMFS asserts that the only new cost will be the industry wide cost of $60,000 due to permitting fees." The proposed rule did not state that this would be the *only* cost—it simply stated that "there will be approximately 2,000 new applications for the IFTP, with an estimated industry-wide increase in annual costs to importers of $60,000 in permit fees." NMFS then later states that "[i]ncremental costs are likely to consist of developing interoperable systems…". NMFS also discusses the issue of incremental costs in the IRFA section of the proposed rule and section 1.3.2 of the RIR.

Advocacy also incorrectly stated that "the IRFA does not have information about the costs of the reporting requirements". Instead, NMFS states that there will not likely be significant additional costs because the industry is otherwise in compliance with the rule. The IRFA stated that "[d]ata sets to be submitted electronically…are, to some extent, either already collected by the trade in the course of supply chain management, already required to be collected and submitted…, or

collected in support of third party certification schemes voluntarily adopted by the trade." NMFS acknowledges that there will be incremental costs; it just could not quantify them.

Advocacy also stated that the number of required data points increases the economic burden on small entities and encouraged NMFS to reconsider whether all of the data points were necessary to collect from small entities. NMFS notes that the proposed rule explained why each data point is necessary to establish the chain of custody and an effective traceability scheme (81 FR 6210, February 5, 2016). In addition, the third alternative that was analyzed in the IRFA discussed a "reduced data set" and was not selected as the preferred alternative because it would not achieve the objectives of the rule.

Advocacy also requested that NMFS consider "less burdensome alternatives" including the voluntary third party certification, Trusted Trader, and European Union catch certification programs and, if these three programs are not viable alternatives, explain why. Advocacy requested that NMFS analyze and take advantage of opportunities to harmonize the Program requirements with the existing EU catch certification scheme and third party certification to minimize the burden on industry.

The proposed rule noted that NMFS did not have sufficient information to analyze the extent to which voluntary third party certification, Trusted Trader, and European Union Catch Certification programs could minimize burden to industry and whether any of them could achieve the rule's statutory objectives, and specifically sought and received public comment on these programs. NMFS received and took into consideration public comment on these programs. Throughout the Response to Comments section of the final rule, NMFS has noted where changes have been made that minimize the burden on industry without compromising the integrity of the Program and those changes are also reflected in the regulatory text. Those changes are also discussed above in section 2.2. NMFS did not make any changes to the final rule as a direct result of Advocacy's comments, but some of the changes do lessen the burden on small businesses and therefore address some of Advocacy's concerns.

2.4 Description and Estimate of the Number of Small Entities Affected

Small seafood merchants (NAICS codes: 424420, 424460, 424490) , which would include importers of fish and fish products subject to the proposed import regulations, are defined by the Small Business Administration (SBA) as those having 100 or fewer employees (13 CFR 121.201). In 2014, for imports of priority species designated in the proposed rule, NMFS estimates that there are approximately 2,000 importers and 600 entry filers of commodities that would be subject to the proposed reporting requirements. Some seafood importers may also process imported fish for the U.S. wholesale and retail markets. NMFS conducted a survey of federally-permitted fish processors in 2015 and found that 73 percent of firms had less than 100 production employees and 96 percent of firms had less than 100 non-production employees. Although NMFS does not have access to data about the business sizes of importers and receivers who are not also federally permitted processors, it is likely that the majority may be classified as

small entities. This FRFA therefore has not differentiated between small and large businesses but instead focuses on the balance between meeting the government obligation to screen imports for admissibility and minimizing the reporting burden on the trade, assuming that all affected entities may be classified as small businesses.

2.5 Description of the Reporting, Recordkeeping, and other Compliance Requirements and Compliance Costs of Rule

NMFS estimates that this rule would affect 2,000 importers and 600 customs brokers, and has considered all to be small entities. It is estimated that these businesses are making 215,000 entries per year for the priority species subject to the initial phase of the traceability program. For these businesses, staff with special skills are necessary to develop software that can be certified by CBP for transmitting data to ACE, and less specialized administrative and data entry skills are required to use the data entry software and to organize a recordkeeping protocol.

Total costs for permits, software, data entry and recordkeeping would amount to $7,875,000 in the first year (including one-time broker software acquisition), and $6,075,000 annually thereafter (Table 10) once the delay in including shrimp and abalone is lifted. Using an alternative methodology suggested by the National Fisheries Institute to estimate the compliance burden, NMFS calculates that reporting and recordkeeping costs for the priority species would amount to $17, 815,225 after the delay is lifted for including shrimp and abalone imports in the program (Table 11). Total costs for permits, software, data entry, recordkeeping and data storage would amount to $20,315,225 in the first year (including one-time broker software acquisition), and $18,515,225 annually thereafter. Given the approximate $9 billion annual value of seafood imports for the priority species subject to the initial phase of the seafood traceability program, the estimated annual compliance costs of from $6.0 to $18.5 million amount to less than one-half of one percent of product value.

The final rule amends the import regulations for certain fish and fish products to establish the requirements for electronically reporting on the harvest event that produced the fish products and to keep records on the supply chain from the point of harvest to the point of entry into U.S. commerce. Importers and entry filers of the affected commodities would have to ensure that records of the harvest event and the subsequent shipment/processing of the fish are maintained and transmitted with the products through the supply chain. Entry filers would submit specified data about the harvest event to CBP via the ACE portal. Importers of record would be required to obtain an International Fisheries Trade Permit (IFTP) and, to support audits for verification purposes, retain the records upon which the information supplied at entry is based, including chain of custody from harvest to import.

The specific information to be collected at entry would include:

- Information on the entity(ies) harvesting or producing the fish, including (as applicable): Name and flag state of harvesting vessel and evidence of authorization; Unique vessel identifier (if available); Type of fishing gear; Name of farm or aquaculture facility; Name of processor.

- Information on the fish that was harvested and processed, including: Species of fish (ASFIS 3–alpha code); Product form; Quantity and/or weight of the product.
- Information on where and when the fish were harvested and landed including: Area of wild-capture or aquaculture harvest; Harvest date(s); Location of aquaculture facility; Point of first landing; Date of first landing. This information would be transmitted to the U.S. importer though catch certificates, landing reports, port inspection reports, as applicable, transmitted through the supply chain. Some entries may be comprised of products from more than one harvest event and each event relevant to the shipment must be documented. However, catches from small scale vessels or deliveries from small scale aquaculture facilities may be aggregated for a single calendar day by the receiving entity.
- NMFS-issued IFTP number of the Importer of record for the entry.

The specific information to be subject to recordkeeping would include:

- Additional information on the chain of custody of the fish or fish product to point of entry into U.S. commerce. Such information would include records on transshipment of product (declarations by harvesting/carrier vessels, bills of lading) and records on processing, re-processing, or commingling of product.

2.6 Description of the Steps Taken to Minimize Burden on Small Entities and Why the Selected Alternative was Chosen.

As discussed above in section 2.2, NMFS made several changes to the final rule in response to comments on the proposed action. Several of the changes will reduce the reporting and recordkeeping burden on importers. In particular, two changes are clarifying the requirements for reporting on multiple harvest events contributing to a single shipment and allowing aggregation of harvests by small scale fishing vessels and small scale aquaculture facilities into a single catch report. An additional change delays the application of the requirements to imported shrimp and abalone products, pending other necessary actions to implement comparable requirements for domestic aquaculture. However, expecting that the delay will be lifted, compliance costs for shrimp and abalone were included in the analysis. Also in response to comments, NMFS has established a one-year period of delayed effectiveness for the final rule, in order for businesses to establish information systems needed to comply with the reporting and recordkeeping requirements. Finally, NMFS also reduced the record retention period from five years to two.

Alternatives Assessed in the Proposed Rule

When deliberating how best to implement a seafood traceability program consistent with the Task Force recommendations, NMFS also considered several alternatives to the proposed rule. Most, if not all, of the affected entities (entry filers and importers) would be classified as small businesses (< 100 employees). NMFS considered several alternatives to provide flexibilities in reducing the burden for all of the small businesses that would be affected. The alternatives considered means of reducing the reporting and recordkeeping burden associated with the

proposed seafood traceability program for all of the small entities that would be required to comply with the rule.

2.6.1 No Action

NMFS considered making no changes to the import regulations. However, NMFS determined that collecting information at entry to support a determination of lawful acquisition was necessary to implement Recommendations 14 and 15 of the Presidential Task Force on Combating IUU Fishing and Seafood Fraud. Additionally, the Executive Order on streamlining the export-import process requires all government agencies who are partnering with CBP on the ITDS project to update their regulations to provide for the electronic entry of import and export shipment data. Agency integration with ITDS for entry processing is also mandated by the SAFE Port Act. Therefore, the no action alternative was rejected.

2.6.2 Harvest Event Data Set and Supply Chain Image Files

NMFS considered collecting only information on the harvest event that would be reported at entry into U.S. commerce via an electronic data set, documenting the initiating point in the supply chain to which an audit would trace back. The supply chain records from harvest to point of entry would also be reported by the importer of record, to be submitted via the ITDS Document Imaging System. NMFS considered this alternative to be overly burdensome in that image files would have to be generated by the trade and submitted for all entries, thereby adding to private sector costs and for government storage. As image files are not amenable to automated processing to support audit selection, there would be not be substantial benefits over retrieving the needed records from importers when an entry is selected for audit based on harvest event data.

2.6.3 Reduced Data Set via ACE with Supplemental Data to NMFS

Another alternative would involve the submission of a limited electronic data set with no scanned documentation provided via the ACE portal. In this scenario, NMFS would require entry filers to submit a limited message set into ACE, but entry filers would also need to separately provide NMFS with any additional documentation and data necessary for NMFS to complete verification of lawful acquisition at the time of, or in advance of, importation. This alternative is not preferred as it would create an unnecessary burden on both NMFS and the trade since it would require entry filers to both complete ACE entry procedures and also submit admissibility documents to NMFS outside of ACE, the ITDS single window. Additionally the reduced data set would be insufficient to perform necessary analytics for auditing selection to verify whether fish products are lawfully acquired and therefore admissible.

Table 1. Tariff codes associated with the priority species for which data would be collected at entry into commerce and/or chain-of custody recordkeeping is required.

A. Harvest Event Reporting at Entry and Chain-of Custody Recordkeeping	
HTS CODE	*COMMODITY DESCRIPTION*
0301940100	TUNA BLUEFIN ATLANTIC,PACIFIC LIVE
0301950000	TUNA BLUEFIN SOUTHERN LIVE
0302310000	TUNA ALBACORE FRESH
0302320000	TUNA YELLOWFIN FRESH
0302330000	TUNA SKIPJACK FRESH
0302340000	TUNA BIGEYE FRESH
0302350100	TUNA BLUEFIN ATLANTIC,PACIFIC FRESH
0302360000	TUNA BLUEFIN SOUTHERN FRESH
0302470010	SWORDFISH STEAKS FRESH
0302470090	SWORDFISH FRESH
0302510010	GROUNDFISH COD ATLANTIC FRESH
0302510090	GROUNDFISH COD NSPF FRESH
0302810010	SHARK DOGFISH FRESH
0302810090	SHARK NSPF FRESH
0302895058	SNAPPER (LUTJANIDAE SPP.) FRESH
0302895061	GROUPER FRESH
0302895072	DOLPHINFISH FRESH
0303410000	TUNA ALBACORE FROZEN
0303420020	TUNA YELLOWFIN WHOLE FROZEN
0303420040	TUNA YELLOWFIN EVISCERATED HEAD-ON FROZEN
0303420060	TUNA YELLOWFIN EVISCERATED HEAD-OFF FROZEN
0303430000	TUNA SKIPJACK FROZEN
0303440000	TUNA BIGEYE FROZEN
0303450110	TUNA BLUEFIN ATLANTIC FROZEN
0303450150	TUNA BLUEFIN PACIFIC FROZEN
0303460000	TUNA BLUEFIN SOUTHERN FROZEN
0303490200	TUNA NSPF FROZEN
0303570010	SWORDFISH STEAKS FROZEN
0303570090	SWORDFISH FROZEN
0303630010	GROUNDFISH COD ATLANTIC FROZEN
0303630090	GROUNDFISH COD NSPF FROZEN
0303810010	SHARK DOGFISH FROZEN
0303810090	SHARK NSPF FROZEN
0303890067	SNAPPER (LUTJANIDAE SPP.) FROZEN
0303890070	GROUPER FROZEN
0304440010	GROUNDFISH COD ATLANTIC FILLET FRESH
0304440015	GROUNDFISH COD NSPF FILLET FRESH
0304450000	SWORDFISH FILLET FRESH
0304530010	GROUNDFISH COD ATLANTIC MEAT FRESH

0304530010	GROUNDFISH COD ATLANTIC MEAT FRESH
0304530015	GROUNDFISH COD NSPF MEAT FRESH
0304530015	GROUNDFISH COD NSPF MEAT FRESH
0304540000	SWORDFISH MEAT FRESH
0304711000	GROUNDFISH COD NSPF FILLET BLOCKS FROZEN > 4.5KG
0304711000	GROUNDFISH COD NSPF FILLET BLOCKS FROZEN > 4.5KG
0304715000	GROUNDFISH COD NSPF FILLET FROZEN
0304715000	GROUNDFISH COD NSPF FILLET FROZEN
0304870000	TUNA NSPF FILLET FROZEN
0304895055	DOLPHINFISH FILLET FROZEN
0304895055	DOLPHINFISH FILLET FROZEN
0304911000	SWORDFISH MEAT FROZEN > 6.8KG
0304919000	SWORDFISH MEAT FROZEN NOT > 6.8KG
0304951010	GROUNDFISH COD NSPF MINCED FROZEN > 6.8KG
0304951010	GROUNDFISH COD NSPF MINCED FROZEN > 6.8KG
0304991190	TUNA NSPF MEAT FROZEN > 6.8KG
0305320010	GROUNDFISH COD NSPF FILLET DRIED/SALTED/BRINE
0305494020	GROUNDFISH COD,CUSK,HADDOCK,HAKE,POLLOCK SMOKED
0305510000	GROUNDFISH COD NSPF DRIED
0305620010	GROUNDFISH COD NSPF SALTED MOISTURE CONTENT > 50%
0305620025	GROUNDFISH COD NSPF SALTED MOISTURE CONTENT BET 45-50%
0305620030	GROUNDFISH COD NSPF SALTED MOISTURE CONTENT BET 43-45%
0305620045	GROUNDFISH COD NSPF SALTED MOISTURE CONTENT NOT > 43%
0305620050	GROUNDFISH COD NSPF FILLET SALTED MOISTURE > 50%
0305620060	GROUNDFISH COD NSPF FILLET SALTED MOISTURE CONTENT 45-50%
0305620070	GROUNDFISH COD NSPF FILLET SALTED MOISTURE CONTENT 43-45%
0305620080	GROUNDFISH COD NSPF FILLET SALTED MOISTURE NOT > 43%
0305710000	SHARK FINS
0306142000	CRABMEAT NSPF FROZEN
0306144010	CRAB KING FROZEN
0306144090	CRAB NSPF FROZEN
0308110000	SEA CUCUMBERS LIVE/FRESH
0308190000	SEA CUCUMBERS FROZEN/DRIED/SALTED/BRINE
1604141010	TUNA NSPF IN ATC (FOIL OR FLEXIBLE) IN OIL
1604141091	TUNA ALBACORE IN ATC (OTHER) IN OIL
1604141099	TUNA NSPF IN ATC (OTHER) IN OIL
1604142251	TUNA ALBACORE IN ATC (FOIL OR FLEXIBLE) NOT IN OIL IN QUOTA
1604142259	TUNA ALBACORE IN ATC (OTHER) NOT IN OIL IN QUOTA
1604142291	TUNA NSPF IN ATC (FOIL OR FLEXIBLE) NOT IN OIL IN QUOTA
1604142299	TUNA NSPF IN ATC (OTHER) NOT IN OIL IN QUOTA
1604143051	TUNA ALBACORE IN ATC (FOIL/ FLEXIBLE) NOT IN OIL OVER QUOTA
1604143059	TUNA ALBACORE IN ATC (OTHER) NOT IN OIL OVER QUOTA
1604143091	TUNA NSPF IN ATC (FOIL OR FLEXIBLE) NOT IN OIL OVER QUOTA
1604143099	TUNA NSPF IN ATC (OTHER) NOT IN OIL OVER QUOTA
1604144000	TUNA NSPF NOT IN ATC NOT IN OIL > 6.8KG

1604145000	TUNA NSPF NOT IN ATC NOT IN OIL NOT > 6.8KG
1605100510	CRAB PRODUCTS PREPARED DINNERS IN ATC
1605100590	CRAB PRODUCTS PREPARED DINNERS NOT IN ATC
1605102010	CRABMEAT KING IN ATC
1605102051	CRABMEAT SWIMMING (CALLINECTES) IN ATC
1605104002	CRABMEAT KING FROZEN
1605104025	CRABMEAT SWIMMING (CALLINECTES) FROZEN
1605104025	CRABMEAT SWIMMING (CALLINECTES) FROZEN
B. Delayed Implementation of Permitting, Reporting and Recordkeeping	
HTS CODE	*COMMODITY DESCRIPTION*
0306160003	SHRIMP COLD-WATER SHELL-ON FROZEN < 15
0306160006	SHRIMP COLD-WATER SHELL-ON FROZEN 15/20
0306160009	SHRIMP COLD-WATER SHELL-ON FROZEN 21/25
0306160012	SHRIMP COLD-WATER SHELL-ON FROZEN 26/30
0306160015	SHRIMP COLD-WATER SHELL-ON FROZEN 31/40
0306160018	SHRIMP COLD-WATER SHELL-ON FROZEN 41/50
0306160021	SHRIMP COLD-WATER SHELL-ON FROZEN 51/60
0306160024	SHRIMP COLD-WATER SHELL-ON FROZEN 61/70
0306160027	SHRIMP COLD-WATER SHELL-ON FROZEN > 70
0306160040	SHRIMP COLD-WATER PEELED FROZEN
0306170003	SHRIMP WARM-WATER SHELL-ON FROZEN < 15
0306170006	SHRIMP WARM-WATER SHELL-ON FROZEN 15/20
0306170009	SHRIMP WARM-WATER SHELL-ON FROZEN 21/25
0306170012	SHRIMP WARM-WATER SHELL-ON FROZEN 26/30
0306170015	SHRIMP WARM-WATER SHELL-ON FROZEN 31/40
0306170018	SHRIMP WARM-WATER SHELL-ON FROZEN 41/50
0306170021	SHRIMP WARM-WATER SHELL-ON FROZEN 51/60
0306170024	SHRIMP WARM-WATER SHELL-ON FROZEN 61/70
0306170027	SHRIMP WARM-WATER SHELL-ON FROZEN > 70
0306170040	SHRIMP WARM-WATER PEELED FROZEN
0306260020	SHRIMP COLD-WATER SHELL-ON FRESH/DRIED/SALTED/BRINE
0306260040	SHRIMP COLD-WATER PEELED FRESH/DRIED/SALTED/BRINE
0306270020	SHRIMP WARM-WATER SHELL-ON FRESH/DRIED/SALTED/BRINE
0306270040	SHRIMP WARM-WATER PEELED FRESH/DRIED/SALTED/BRINE
1605211000	SHRIMPS AND PRAWNS, NOT IN AIRTIGHT CONTAINERS
1605291000	SHRIMPS AND PRAWNS, OTHER
1605570500	ABALONE PRODUCTS PREPARED DINNERS
1605576000	ABALONE PREPARED/PRESERVED

Table 2. List of countries found in both U.S. and EU import data for priority species with the scope of the intital phase of the U.S. seafood traceability program. (Note: The following list is not comprehensive because readily available EU import data was only found for certain product forms of the following priority species: tuna, swordfish, shrimp, cod, crab (nonspecified)).

Solomon Islands	Iceland	Republic of Korea
Norway	Russia	Thailand
China	Canada	Faroe Islands
Greenland	Argentina	Chile
Indonesia	Singapore	Vietnam
Australia	Bangladesh	Belize
Brazil	Colombia	Costa Rica
Ecuador	El Salvador	Guatemala
Guyana	Honduras	India
Malaysia	Mexico	Morocco
Mozambique	Myanmar (Burma)	Nicaragua
Nigeria	Pakistan	Panama
Peru	Philippines	Senegal
Suriname	Taiwan	Tunisia
Venezuela	Cote d'Ivoire	New Zealand
South Africa	French Polynesia	Egypt
Maldives	Sri Lanka	Tunisia
Turkey	Mauritania	Mauritius
Seychelles	Fiji	United Arab Emirates

Table 3. List of countries found in U.S. import data for priority species but not found in EU import data for certain HTS codes for the designated priority species (Note: Readily available EU import data was only found for certain product forms of the following priority species: tuna, swordfish, shrimp, cod, crab (nonspecified)).

a. Exporting seafood to EU under 03 and/or 16 HTS seafood chapters but these exports may not include priority species designated by the U.S.:

Bahamas	Cameroon	Dominican Republic
Grenada	Haiti	Hong Kong
Kiribati	Marshall Islands	Tonga
Trinidad and Tobago	Vanuatu	

b. No seafood exports to EU found under HTS Chapters 03 and 16 for:

Bahrain	Barbados	Brunei
St. Vincent-Grenadines	Turks and Caicos	

Note: Bahrain exported 2.5 metric tons of priority species (grouper and snapper) valued at $14,700 to the United States in 2014. Barbados exported 162 metric tons of priority species (Swordfish, Bigeye tuna, and Yellowfin tuna) valued at $1.6 million to the United States in 2014. Brunei exported 96 metric tons of priority species (shrimp) valued at $1.7 million to the United States in 2014. St. Vincent-Grenadines exported 1.4 metric tons of priority species (yellowfin tuna) valued at $14,000 to the United States in 2014. Turks and Caicos exported 29 metric tons of priority species (grouper, snapper, swordfish, albacore tuna, bigeye tuna, and yellowfin tuna) valued at $255,000 to the United States in 2014.

Table 4. U.S. Imports of priority species 2014, including top 3 countries' market share by volume for each species.

Country	Species	Kilograms	Dollars	% Market Share
Mexico	Abalone	145,376	6,212,037	30
Australia	Abalone	119,931	3,816,295	25
Chile	Abalone	72,721	2,021,229	15
Total of all countries	Abalone	489,968	17,625,878	
China	Cod	45,137,148	236,831,205	68
Iceland	Cod	7,087,758	63,054,563	11
Canada	Cod	4,785,553	31,789,728	7
Total of all countries	Cod	66,421,097	392,459,493	
Ecuador	Dolphinfish	7,028,268	57,971,339	27
China-Taipei	Dolphinfish	5,813,313	44,865,066	22
Peru	Dolphinfish	5,581,660	46,039,971	21
Total of all countries	Dolphinfish	26,479,270	200,837,933	
Mexico	Grouper	3,293,973	28,969,813	70
Panama	Grouper	539,243	4,608,991	11
China-Taipei	Grouper	172,744	396,443	4
Total of all countries	Grouper	4,710,922	39,071,155	
Russia	King Crab	10,317,625	218,488,936	82
Argentina	King Crab	2,013,786	24,794,873	16
South Korea	King Crab	62,424	488,209	.5
Total of all countries	King Crab	12,513,483	246,555,038	
Mexico	Snapper	3,273,122	21,327,445	22
Nicaragua	Snapper	2,666,151	16,857,842	18
Brazil	Snapper	2,494,197	14,818,537	17
Total of all countries	Snapper	14,932,709	96,576,113	
Canada	Sea Cucumber	2,465,289	2,836,651	64
Mexico	Sea Cucumber	915,371	19,276,279	24
Honduras	Sea Cucumber	246,526	2,828,828	6
Total of all countries	Sea Cucumber	3,825,570	28,077,309	
Canada	Shark	81,721	164,249	38
Mexico	Shark	80,756	242,095	37
New Zealand	Shark	34,175	406,461	16
Total of all countries	Shark	217,492	1,108,504	
India	Shrimp	108,664,250	1,380,181,289	19
Indonesia	Shrimp	103,329,294	1,318,682,502	18
Ecuador	Shrimp	92,404,949	901,153,656	16
Total of all countries	Shrimp	568,644,225	6,696,846,217	

Ecuador	Swordfish	2,505,322	19,162,612	27
Canada	Swordfish	1,247,748	14,904,589	13
Singapore	Swordfish	845,757	7,646,393	9
Total of all countries	Swordfish	9,441,735	81,994,767	
Thailand	Tuna	107,793,724	475,312,852	38
China	Tuna	29,047,881	119,768,436	10
Philippines	Tuna	25,739,305	133,825,442	9
Total of all countries	Tuna	282,599,143	1,536,145,345	
Grand Total*	All Species above	990,275,614	$9.34 billion (figure rounded)	
2014 Total Edible Seafood Imports	All Edible Imports	2,540,000,000 (approx.)	$20.2 billion	

*- Blue Crab data not available.

Source: U.S. Census trade data provided to NMFS.

http://www.st.nmfs.noaa.gov/commercial-fisheries/foreign-trade/applications/annual-product-by-countryassociation

Table 5. Estimated data entry costs for including vessel data in ACE message set reported at time of entry filing for entries subject to NMFS Tuna Tracking and Verification Program.

Vessel flag reports Per Entry	Frequency	Minutes per Entry for Vessel Data	Cost Per Entry	Estimated Total Cost All Entries
1	8,266	10	$4.17	$34,441.67
2	1,697	20	$8.33	$14,141.67
3	529	30	$12.50	$6,612.50
4	284	40	$16.67	$4,733.33
5	127	50	$20.83	$2,645.83
6	90	60	$25.00	$2,250.00
7	67	70	$29.17	$1,954.17
8	44	80	$33.33	$1,466.67
9	19	90	$37.50	$712.50
10	17	100	$41.67	$708.33
11	4	110	$45.83	$183.33
Total Entries	11,144	-	-	$69,850.00
			Average cost per entry for vessel data	$6.27

Estimates based on number of TTVP entries in 2014 and flag nation vessel records reported for each entry. Assume total labor costs of $25.00/hour for data entry personnel and 10 minutes per individual vessel harvest event record included in message set. These estimates are for vessel data only, additional data entry costs are associated with record structure, product description, and permit number.

Table 6. Estimated data entry and recordkeeping costs per NMFS message set filing in ACE including header records, permit number, product data and vessel specific catch information.

Cost Category	**Average Time/Entry**	**Unit Cost Labor**	**Total Cost/Entry**
Header records/permit number/product data	12 minutes	$25.00	$5.00
Vessel/catch data (average # vessels)	24 minutes	$25.00	$10.00
Total data entry with vessel/catch data	36 minutes	$25.00	$15.00
Recordkeeping	24 minutes	$25.00	$10.00
Total data entry and recordkeeping (with vessel/catch data)	60 minutes	$25.00	$25.00

Table 7. Number of import entries filed in 2013 and 2014 for the 13 priority species included in the initial phase of the traceability program.

ENTRY YEAR	EDIBLE CODE	NUMBER OF ENTRIES
2013	Edible	202,839
	Non-edible	2,226
	2013 Total	**205,065**
2014	Edible	212,538
	Non-edible	3,204
	2014 Total	**215,742**

Table 8. Annual reporting and recordkeeping costs for 13 priority species

	Average Annual Entries	Reporting Cost per ACE Entry	Aggregate Reporting Cost	Recordkeeping Cost per ACE Entry	Aggregate Recordkeeping Cost	Aggregate Total Cost
13 Priority Species	215,000	$15.00	$3,225,000	$10.00	$2,150,000	$5,375,000
Delayed Shrimp & Abalone Reporting[1]	145,000	$15.00	$2,175,000	$10.00	$1,450,000	$3,625,000

[1]Approximately 70,000 shrimp/abalone entries would not be subject to program requirements until NMFS lifts the stay.

Table 9. Annual data storage costs associated with recordkeeping requirement.

Entries/Year	215,000
Pages /Entry	20
MB/Page (image files)	0.5
MB/Entry	10.0
Importers	2000
Entries/Importer/Year	110
Storage/Importer/Year	1.1 GB
Storage Needs (2 year records)	2.2 GB
Computer/Scanner (3 year life annualized)	$200
Cloud Storage Backup (annual)	$120
Total Cost/Importer/Year	$320
Total Annual Cost for all Importers	$640,000

Table 10. Annual compliance costs for initial phase of seafood traceability program.

Cost Category	Number of Respondents or Events	Cost Basis	Estimated cost
International Fisheries Trade Permit	2000 Importers	$30.00	$60,000
ACE Software for NMFS Message Set*	600 Brokers	$3,000.00	$1,800,000
Reporting	215,000 entries	$15.00	$3,225,000
Recordkeeping	215,000 entries	$10.00	$2,150,000
Data Storage	2000 Importers	$320/year	$640,000
Total (first year)	-	-	**$7,875,000**
Total (out years)			**$6,075,000**

*Software acquisition for first year only

Table 11. Upper-bound estimate of reporting/recordkeeping compliance cost based on National Fisheries Institute comments and suggested estimation approach.

Species	Country and Harvest Technique	Cost Per Container	2015 Containers	Cost Per Year	Supply Chain Audit Costs	Total Cost
Swordfish	Singapore, Longline/ Harpoon	$1,725	750	$1,293,750	$200,000	$1,493,750
King Crab (Red)	Russia, Pot	$73	3991	$291,343	$30,000	$321,343
Farmed Shrimp	Thailand, Aquaculture	$32[1]	39116	$1,251,712	$4,460,000	$5,711,712
Atlantic Cod Trawl	Norway, Iceland, Russia	$274	1868	$511,832	$840,000	$1,351,832
Atlantic Cod Inshore	Norway, Iceland, Russia	$993[2]	467	$463,680	N/A	$463,680
Pacific Cod	U.S., Russia	$274[3]	877	$240,298	N/A	$240,298
Mahi-Mahi	Ecuador, Panga	$872[4]	1309	$1,141,448	$770,000	$1,911,448
Blue Crab	Mexico, Day Boats	$17,668[5]	54	$954,072	$40,000	$994,072
Grouper	Indonesia, Small boats	$4,155[6]	763	$3,170,265	$290,000	$3,460,265
Red Snapper	Mexico and Brazil, longline	$421[7]	1131	$476,151	$150,000	$626,151
Sea Cucumber	Canada, Divers	$4,361[8]	167	$728,287	$110,000	$838,287
Shark	Thailand, Otter trawl	$237	5	$1,185	$40,000	$41,185
Abalone	Australia, Divers	$270[1]	38	$1,202	$360,000	$361,202
Total			50,536	$10,525,225	$7,290,000	**$17,815,225**

[1] NFI estimate revised to account for delayed implementation of including shrimp and abalone in the program.
[2] NFI estimate for simple supply chain used assuming 1000 kg volume per vessel to account for aggregated harvest and larger average volume per vessel.
[3] NFI estimate for Atlantic cod trawl used to account for harvest by large trawler and longline vessels.
[4] Low end of NFI's complex range in public comment used to account for aggregated harvest report.
[5] NFI estimate reduced by 25% to account for aggregated harvest reports.
[6] NFI estimate reduced by 25% to account for aggregated harvest reports.
[7] NFI estimate reduced by 25% to account for aggregated harvest reports.
[8] NFI estimate reduced by 25% to account for aggregated harvest reports.
N/A – Audit costs for all cod imports based on importer estimate for trawl-caught Atlantic Cod